AMS 7
Disc 1
6/21/16

1A Comparing two numbers A and B

Method 1: Absolute

B - A
cancer deaths 1985 − cancer deaths 1970

462,000 − 331,000 =
+131,000
131,000 more deaths in 1985 than in 1970

A - B
cancer deaths 1970 − cancer deaths 1985

331,000 − 462,000 =
−131,000
131,000 fewer cancer deaths in 1970 than 1985

Method 2: Relative note: sig figs = same as given
leading/trailing 0's not sig

- How much bigger (+) or smaller (−) B is than A?

$\frac{B-A}{A} \times 100\%$ $100 \cdot \left[\frac{462000 - 331,000}{331,000}\right] = 39.6\%$

The # of US cancer deaths in 1985 was ~40% bigger than the corresponding # in 1970.

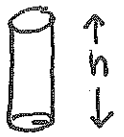
- How much bigger or smaller is A than B?

$100 \cdot \frac{A-B}{B} = 100 \cdot \left(\frac{331,000 - 462,000}{462,000}\right) = 28\%$

... 1970 28% smaller than 1985

- Explain how the # of people dying of cancer could inc. even if treatment improving...
  - Maybe improved attributing cancer to cause death
  - Maybe total US population grew, probably not
- What would be a better variable to measure effectiveness of treatment?
  - 5 yr survival rate from diagnosis

1B Volume ← good variable to look at



radius @ base

$A = \pi r^2$

$V = \pi r^2 h$

cone vol $= \frac{1}{3} \pi r^2 h$